

AMENDMENTS TO THE SPECIFICATION

Please replace Paragraph [0026] with the following paragraph rewritten in amendment format:

The analysis portion 18b of the analysis and separation sub-system 18 is able to determine, according to various parameters and techniques, the presence and the identity of various selected agents from the concentrated atmospheric sample. For example, the tag applied to the atmospheric sample may include a selected and detectable property. A detectable property may include various forms of radiation that may be emitted by the tag applied in the tagging sub-system 16 that may be detected in the analysis portion ~~18c~~ 18b of the analysis and separation sub-system 18.

Please replace Paragraph [0038] with the following paragraph rewritten in amendment format:

With particular reference to Figure 2, the tagging sub-system 16 is generally positioned operably with an outlet 24 25 of the sample concentration sub-system 14. The outlet 24 25 provides the concentrated sample to a mixing cell 26. The mixing cell 26 is generally able to contain the concentrated sample from the sample concentrator 14 for the tagging process. Operably interconnected with the mixing cells 26 is an ultrasonic vibrator or mixer 28. It will be understood that any other appropriate mixer may be provided besides the ultrasonic mixer 28, but size and speed considerations may allow for use of the ultrasonic mixer 28. It will be understood that other mixing processes, such as mechanical, mass distribution, and other generally known mixing apparatus can be used in the mixing chamber 26.

Please replace Paragraph [0051] with the following paragraph rewritten in amendment format:

The optical window 60 (i.e. the first portion 60a of the optical window 60) allows for an excitation source 64 to form or transmit an excitation beam 66 to be transmitted through the optical window 60. The excitation beam 66 excites a selected portion of the particles 50, as described further herein. In addition, a receiver or analysis system 68 is provided to receive or detect through the optical window 60 (i.e. the second portion 60b of the optical window 60) any emitted energy or beam from the selected particles 50, also described further herein. Therefore, the optical window 60 is able to allow both the excitation beam 66 and emitted energy from the selected particles 50 to reach the optical detector 68.

Please replace Paragraph [0055] with the following paragraph rewritten in amendment format:

Extending from the optical window 60 and generally towards the axle 44 is a an insulator portion 72. The insulator portion 72 is able to interconnect the optical window 60 through the center of the separation chamber 42 and connect at the optical window 60 to the axle 44 for rotation of the separation chamber 42. Also, the insulator 72 substantially electrically isolates a dielectric pattern or electrode 76 that is provided near the optical window 60. The electrode 76 is able to provide a voltage over the area of the separation chamber 42. The dielectric electrode 76 is able to provide a dielectric force to the particles 50 that are provided to the separation area 62. As described herein, the voltage provided by the electrode 76 interacts with a centrifugal

force that is produced by rotation of the separation chamber 42. Also, various seals 80 are provided to insure that the sample of the atmosphere that is interconnected with the tags to form the particles 50 are not able to ~~be either or both contaminator~~ contaminate or be contaminated from external sources or from the system 10 itself ~~or to~~. The seals can also ensure the particles 50 do not escape the separation area 62. Therefore, the seals 80 are able to insure that the sample that has been collected and interconnected with the tags to form the particles 50 is able to be separated and detected using the separation system 42.

Please replace Paragraph [0065] with the following paragraph rewritten in amendment format:

In operation of the separation chamber 42, the particles 50 are allowed to move from the mixing chamber 26 in the direction of arrow A towards the separation chamber 42. The particles 50 enter the upper portion 42a of the separation chamber 42 for separation. As discussed above, the separation chamber 42 generally rotates, thereby providing a centrifugal force on the particles 50. That is, the particles 50 are generally forced towards an outside 42b of the selection or separation chamber 42. The particles 50 are forced towards the outside 42b in the direction of Arrow B, or the edge of the annular or toroidal separation chamber 42. Alternatively, or contrary to the centrifugal force B, the dielectric force forces the particles in the direction of arrow C. The dielectric force, which is produced by the voltage provided across the electrode 76, forces the particles 50 towards the center, towards the axis axle 44 (which can define a center axis) of the separation chamber 42. The two forces, as discussed briefly herein,

are dependent upon the dielectric constant of the particle 50 and the mass and size of the particle 50. Very briefly, the particle 50, having a selected mass, will include a force that is towards the outside 42b of the separation chamber 42 because of the centrifugal force. Whereas, the dielectric constant of the particle provides a contrary force the direction of arrow C towards the center of the separation chamber 42. Nevertheless, after the particles 50 have been generally separated and detected, the particles continue in the direction of arrow D through an outlet conduit 86.